Introducing Informatioan and Communication Technologies (ICT) to Young Learners

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Abstract: *The importance of introducing technology to early childhood is no longer an option, but an obligation because if they are not introduced from the early, it is very possible that they will find out through friends or the environment outside the home which is not necessarily productive for the development of young learner. Even more, so if they access technological advances without parental supervision or assistance. Many influences resulting from the spread of Information communication technology in all fields not only in college. However, learning in early childhood education is very much needed. This article aims to discuss the importance of introducing information communication technology to early childhood, the use of information communication technology as a learning medium for children according to age, the negative effects of information communication technology on children and making information communication technology safe and beneficial for children.*

Abstrak: Pentingnya memperkenalkan teknologi kepada anak usia dini bukan lagi pilihan, tetapi kewajiban karena jika mereka tidak diperkenalkan sejak dini, sangat mungkin mereka akan mengetahuinya melalui teman atau lingkungan di luar rumah yang belum tentu produktif untuk perkembangan anak. Terlebih lagi, jika mereka mengakses kemajuan teknologi tanpa pengawasan atau bantuan orang tua. Banyak pengaruh yang dihasilkan dari penyebaran teknologi informasi dan komunikasi di semua bidang, tidak hanya di perguruan tinggi. Namun, pembelajaran di pendidikan anak usia dini sangat dibutuhkan. Artikel ini bertujuan untuk membahas pentingnya memperkenalkan teknologi informasi dan komunikasi kepada anak usia dini, penggunaan teknologi informasi dan komunikasi sebagai media pembelajaran untuk anak sesuai usia, efek negatif teknologi informasi dan komunikasi pada anak, dan membuat teknologi informasi dan komunikasi aman dan bermanfaat bagi anak-anak.

PENDAHULUAN

In globalization era, the use of technology cannot be separated from human life. Many activities carried out by humans from morning to night all depend on the role of this technology. Therefore, we must admit that technology plays an important role in everyday life. Many studies reveal the important role of technology in certain fields.

In the world of education, Information and Communication Technology is an interesting learning medium, because with Information and Communication Technology it will be easier for a teacher to transfer knowledge to their students in a fun way. Of course, the introduction and use of technology is highly recommended to students so that they can easily absorb a very broad knowledge. This introduction can be done to early childhood to adult children.

Maria Montessori (1949) Early childhood is an individual who is undergoing a very rapid and fundamental development process for the next life. In the age range 0-6 years, early childhood experiences rapid growth and development in various aspects. Starting from the development of brain cells to motor muscles of children.

In this case, it is possible to make Information and Communication Technology as a medium in the learning process for early childhood in developing their potential. As mentioned by Yuli Safitri, Umi Anita Sari (2015) using learning media that is combined with sound, images, animation and other digital elements that can be displayed more attractively can increase children's enthusiasm to learn and listen to the material presented.

Based on the above explanation, the magnitude influence of technology on human life, it is necessary to introduce Information Commicication Technology, especially for early childhood so that their ability development is achieved perfectly.

DISCUSSION

The Characteritics of Young Learner

Early child is an individual figure who is undergoing a very rapid development process. In this stage, children are in "golden age" where they will accept what they learn. They are always active, creative, and enthusiastic, and have a very high curiosity about what they see and hear.

Young learner usually learn by referring to the principle of play. Playing is an activity carried out that produces information, provides pleasure or develops imagination in children (Sudono, 2000).

According to Santrock, playing is a fun activity that involve for its own sake. Harlock explains play is an activity which is done for the pleasure it engenders, without considering the result in the end of activity. Playing is done voluntarily, so there is no coercion or pressure from outside and also because not of obligation.

Through playing, demands for children's motoric development, cognitive, creativity, language, emotion, social interaction, values, and attitudes to life can be met. When children are playing, they will imagine and issue the ideas stored in them. They will express their knowledge about the world around him. Through playing, children have more opportunities to explore so that understanding of concepts and basic knowledge can be understood by children easily.

While learning is a mental or psychical activity that takes an active interaction with environment that increase knowledge, understanding, skills and attitude values (Darsono, 2000). According to Gredler, learning is a process carried out by a person to acquire various learnings, skills, and attitudes. Result in changes in knowledge, understanding, and attitudes and these changes are new experiences that occurs because of a conscious effort, so that it will have implications for the function of life.

From the explanation above, it can be understood that, playing while learning is a play activity in which there are elements of learning. through play, demands for the developmental needs of the motoric, cognitive, creativity, language, emotional, social interactions, values, and attitudes to life can be fulfilled. When playing, children will imagining and releasing the ideas that are stored in him. Children can express the knowledge he has about the world around him. Through play activities, children have more opportunities to explore, so that their understanding of concepts and basic understanding of knowledge can be understood by children more easily.

Definition of Informatioan and Communication Technologies

Information and communication technology is a term which includes all technical equipment for processing and conveying information. ICT includes two aspects, namely information technology and communication technology.

Information technology is the study or use of electronic equipment, especially computer to store, analyze and distribute any information, including words, numbers and pictures. As stated by Lucas in Munir, information technology is forms of technology applied to process and transmit information in electronic forms, microcomputers, mainframe computers, barcode readers, software transaction processing, spreadsheet tools and communication and networking equipment are example of information technology. The information conveyed is in the form of electronic messages.

While communication technology is a technological device consisting of: hardware, software, processes and systems, which are used to assist the communication process, which aim for successful communication. Information technology includes everything related to the process, use as a tool, manipulation, and management of information. So that, communication technology is everything related to the use of tools to process and transfer data from one device to another. Therefore, information technology and communication technology are two inseparable concepts.

In short, it can be understood that information technology is more on processing systems information while communication technology serves to transmit information. Another theory formulate a definition of information and communication technology as something that allows we obtain information to communicate with each other or to have an influence on the environment in which electronic and digital equipment is used.

Introducing ICT to Young Learner

Learning by using information communication technology in early childhood has many perceptions, including: use of information communication technology as a media for learning or teaching information communication technology to them.

The teaching and learning process is essentially a communication process, namely the learning process of delivering messages from the source of the message through certain media to the recipient of the message.

Technology is like two different sides of a coin, which has a positive side and negative. So, the implementation of technology will be different for each age of children's development. Here are ways to introduce technology to early childhood based on the age of children (Susanto 2017);

a. Ages 0–2 years: At this age, children begin to learn to hear and hear the surroundings, from the stimulation through movement, and voice. Then children begin to imitate when they begin to learn speaking.

Giving information technology to this age can be done through multimedia by playing spiritual songs or children's songs. Introducing colors through multimedia by playing cartoons, which are contain education. This activity help children's character building.

b. Ages 3-4 years: At this age, children begin to use almost complete sentence, this is can be seen from the way they ask something. According to Piaget, the way children asking questions show a child's cognitive development. In a child who comes from an authoritarian parental background, children learn less to speak, than in a democratic family, where children not only learn to "hear" but also "heard".

In this age (3-4 years) it is important to provide information technology through multimedia such as at the age 0-2 years but the way of learning is slightly increased according to the age of the child who has been able to receive more stimulation. For example starting to recite holy Quran using multimedia, introducing religious cartoon or movie through multimedia. Of course parents need assistance so that it can be seen how far the child is able to learn. The more opportunities a child has to learn to speak, it help children grow their self-confidence so that at their school age can introduce and express themselves verbally.

c. Ages 5–6 years: At this age, the introduction of the ICT world has increased. The introduction can be in the form of an introduction to computer hardware (hardware) that can be seen and held directly by the child, for example: CPU, Monitor, Mouse, Keyboard and Printer. This introduction is also equipped with an explanation of the function of each tool by direct practice (learning by doing).

d. Ages 7–8 years: at this age, introduction to the ICT has entered the program level interactive, where children can interact with learning application programs.

Negative Effects of Computers on Early Childhood

In addition to the benefits that have been given by technological developments, especially computer technology in this era of globalization, there are also negative impacts from these developments, while the negative impacts are as follows:

According to (Chiba Takeo, et. al. 1997). In general, computers are assumed to have an impact that the personal relationship between children with one another becomes weak because children communicate less when they use computers. Meanwhile, according to (Pribadi, et al, 2010) are:

a. Computers can cause children's eyes to hurt if they are too long in front of the computer.
b. Computers can also cause children to be lazy to learn, if children are familiar with online games.
c. It is very likely that children consume games that feature elements of violence without their parents knowing.
d. Children will lose playing time with friends of their age which will make the child's social life lack of balance.
e. Children also become lazy to study because a lot of time is spent in front of the computer, resulting in decreased academic achievement.
f. Internet access will also have a negative impact even though in fact, being able to access the internet is a good start for the development of children's insights. Children will be threatened by the amount of bad information that floods the internet.
g. Disturbing health, for example, repetitive stress or strain injury, eye fatigue and headaches, back and neck pain, and so on.

Making Computers Safe and Beneficial for Children

Considering the use of computers is something that cannot be avoided at this time and in the future, but children must be introduced to computers even though there are bad effects

that can be caused, it is better for us to develop strategies in introducing computers to children. Here are some tactics that can be done in introducing computers to children.

a. Introduce computers to children according to their age. Introduction for toddlers, can be started by guiding him to touch the computer, holding the mouse, typing the letters on the keyboard.
b. Accompany children when they use the computer. Direct and guide them in warm communication. It's a good idea to use a password so that your child cannot use the computer without supervision.
c. Make your own curriculum at home. For example, do not show all the application programs that you will give to children. Give one by one, step by step.
d. Educators and parents should continue to develop their abilities and skills in using computers. Sometimes what happens is the opposite, children are more sophisticated than their parents. This can result in supervision and guidance being limited to the ability of educators or parents only. Be your child's first source of these developments.
e. Make an agreement with your child about what you can and can't do with the computer. Do not make your own rules, involve children in making rules so that children can also feel the responsibility to implement every rule that has been made together.
f. The computer should not be placed in the child's private room, because this will make it difficult for parents to supervise their children.
g. Computers also have certain effects on a person's physique. Pay attention to spatial issues, lighting, electrical hazards, sitting position, table and chair height, and so on. So that children are really in a really comfortable, safe and healthy state when using the computer.

CONCLUSION

Based on the description above, it can be concluded that, currently we cannot break away from the development of information and communication technology (ICT), because it has become a part of life and necessity. This pattern of life has an impact on development of education that utilizes ICT in particular as a learning medium.

As an effort to develop individual abilities in the practical use of ICT it is necessary to introduce it from an early age. The development of early childhood abilities in ICT must continue to be carried out according to the concept

Early childhood learning is learning while playing and playing while learning. Theory as well as the teaching materials provided must also be varied and not monotonous with various characteristics of ICT as a learning medium so that the imagination of the child can develop optimally as they age. so that more improve their intellectual and emotional abilities.

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